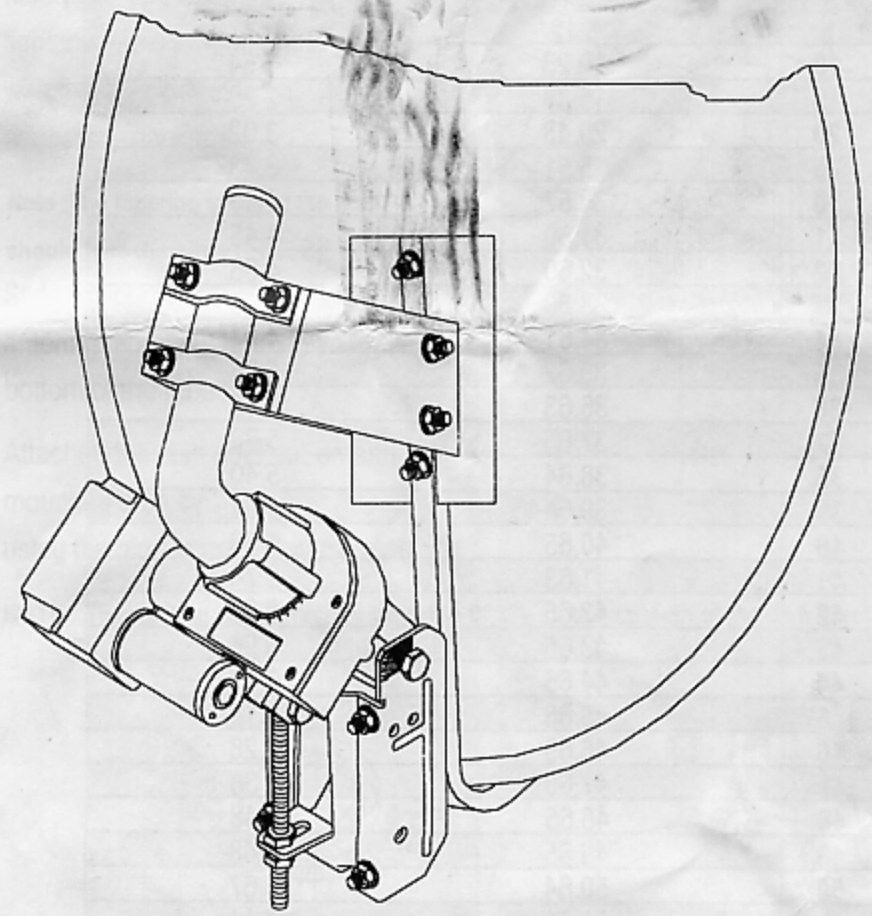
JAEGER® SMR/SMO-99G

HORIZON TO HORIZON MOUNT

- Easily Upgrade Fixed Offset Dish to Motorized Dish
- 36VDC Extremely Quiet Motor
- Patent Backlash Self-Adjusting Device
- Adjustable Mounting Bracket for 38-75mm Diameter Pole



INSTALLATION MANUAL

BEFORE YOU START

1. Check the map to find out the following data:

   a). The direction of **TRUE SOUTH** from your site

   b). Your site **Latitude**

   c). Your site **Longitude**

2. Refer to TABLE 1 to find out the **DECLINATION ANGLE** and **ELEVATION ANGLE** of your site.

3. Check the Dish manufacturer for **OFFSET ANGLE OF THE DISH.**

TABLE 1. DECLINATION ANGLE

LATITUDE	ELEVATION	DECLINATION
5	5.12	0.77
10	10.23	1.54
15	15.33	2.29
20	20.43	3.02
25	25.51	3.73
30	30.57	4.40
31	31.59	4.45
32	32.60	4.66
33	33.60	4.79
34	34.61	4.91
35	35.62	5.04
36	36.63	5.16
37	37.63	5.28
38	38.64	5.40
39	39.64	5.51
40	40.65	5.63
41	41.65	5.74
42	42.65	5.85
43	43.65	5.96
44	44.66	6.07
45	45.66	6.18
46	46.65	6.28
47	47.65	6.38
48	48.65	6.48
49	49.65	6.58
50	50.64	6.67
55	55.61	7.11
60	60.56	7.51
65	65.49	8.84
70	70.41	8.11
75	75.32	8.33
80	80.22	8.48
85	85.11	8.57

INSTALL THE MOUNT

1. Make sure that the mounting pole (1) is vertical. (FIG. 1)
2. Slide down the mount, insert the mounting pole into the two U-screws (2) of the pole bracket. (FIG. 1)
3. Tighten two nuts (3) equally, but do not fully tighten them because the mount must be adjusted toward TRUE SOUTH later.
4. Assemble the antenna mounting tube (4) onto the mount by tightening two tapering nuts (5) which are included in the accessory package.

   Note :The tapering sides of the nuts should face the tube. (FIG. 2)
5. Slide the plastic cover of the antenna mounting tube down to the bottom of the tube. (FIG. 1)
6. Attached the dish onto the antenna mounting tube by using the pipe clamp (6) of the dish.

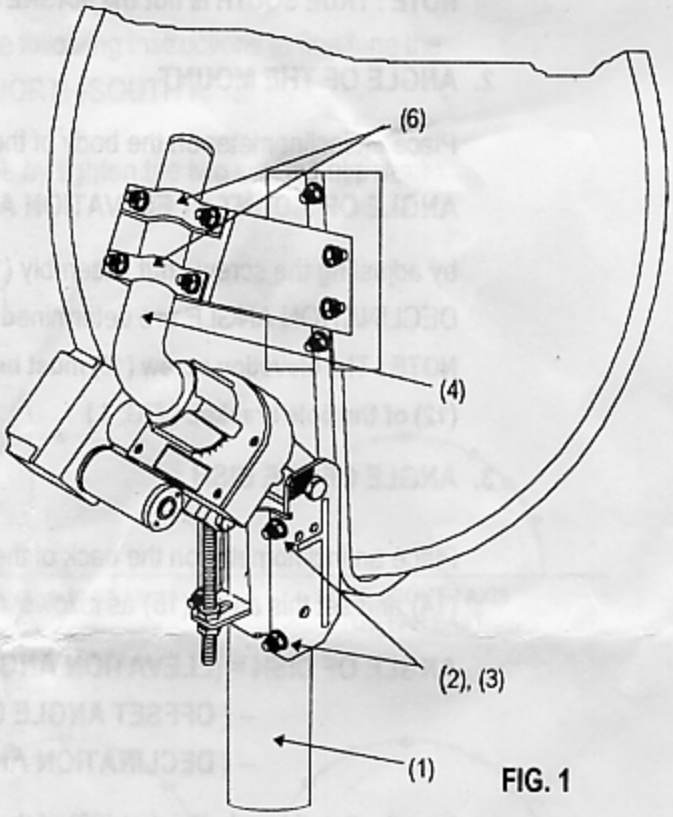


FIG. 1

NOTE : The rotating axis is factory preset to 0° (7), so the azimuth of the dish must be also 0° .

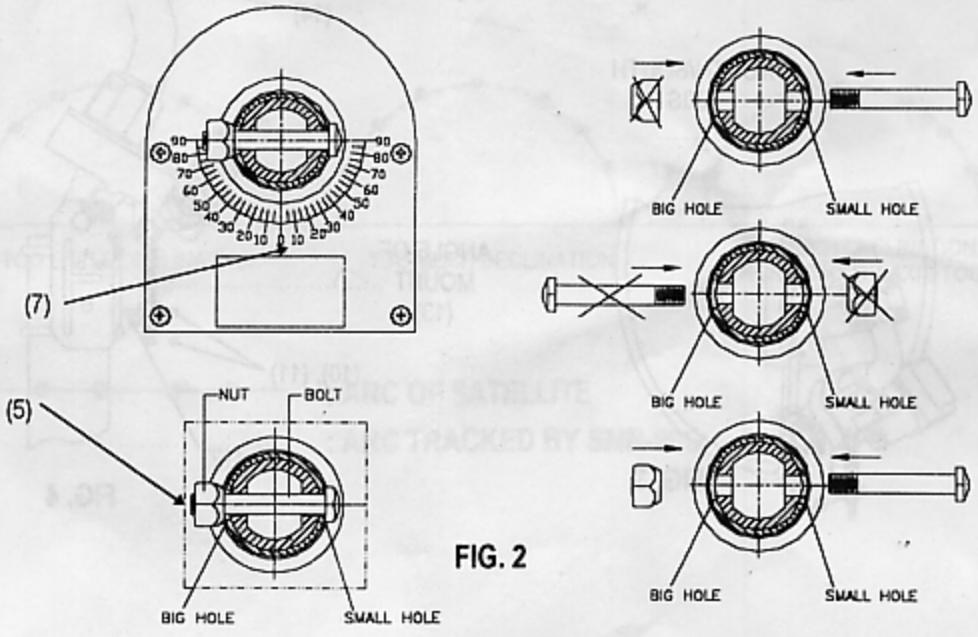


FIG. 2

ALIGNMENT OF THE MOUNT

1. ALIGN THE MOUNT FACING TRUE SOUTH

Make sure again that the azimuth of the dish is set to 0°. Align the mount to let the mount azimuth 0° (NORTH/SOUTH AXIS) pointing to the TRUE SOUTH (8).

NOTE : TRUE SOUTH is not the MAGNETIC SOUTH indicated by a compass. (FIG. 3)

2. ANGLE OF THE MOUNT

Place an inclinometer on the body of the mount (9) and set this angle (13) as follows,

ANGLE OF MOUNT = (ELEVATION ANGLE)

by adjusting the screw / nut assembly (10) & (11), which the ELEVATION ANGLE and DECLINATION ANGLE are determined by TABLE 1.

NOTE : The elevation screw (10) must be always kept perpendicular to the supporter (12) of the pole bracket. (FIG. 4)

3. ANGLE OF THE DISH

Place an inclinometer on the back of the antenna plate (14) and set this angle (15) as follows, (FIG. 4)

ANGLE OF DISH = (ELEVATION ANGLE)
– (OFFSET ANGLE OF THE DISH)
– (DECLINATION ANGLE)

by adjusting the pole bracket (20) of the dish.

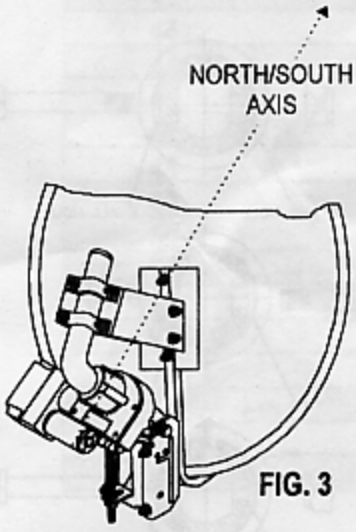


FIG. 3

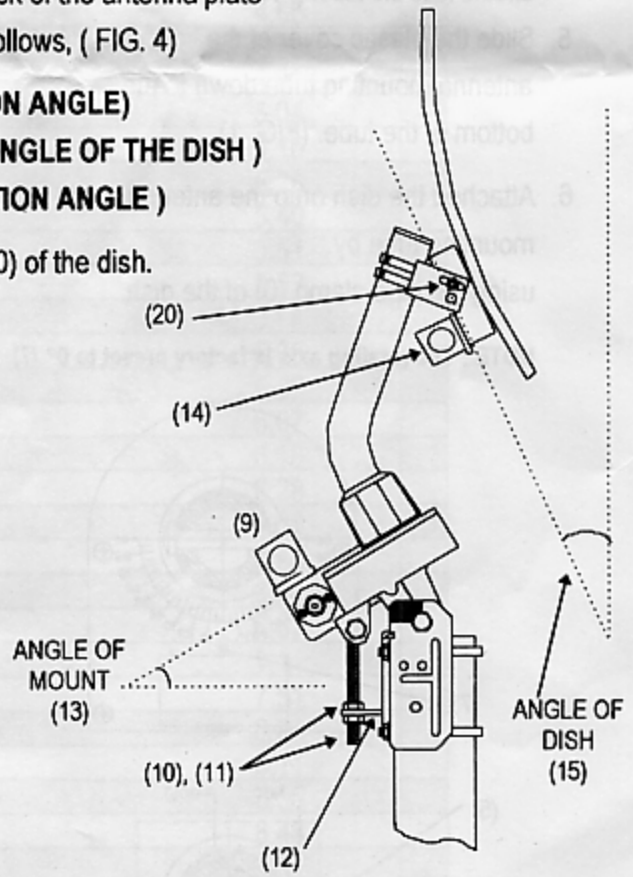
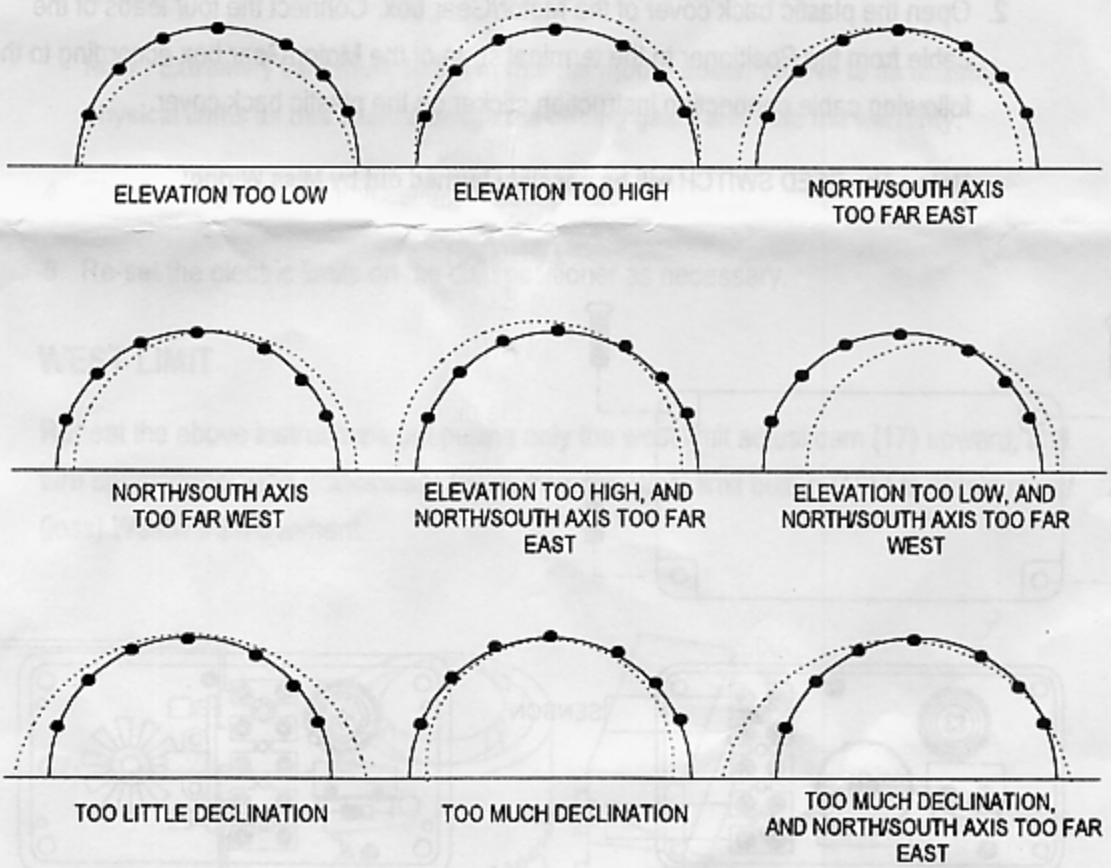


FIG. 4

QUICK CHECK OF THE POLAR ARC

1. Connect the LNB to receiver or any test instrument which can show the satellite signal strength.
2. Unscrew the two taper nuts (5), pull out the two screws from antenna mounting tube.
3. Manually rotate the dish, refer to the following instructions to fine tune the ELEVATION, DECLINATION and NORTH/SOUTH AXIS.
4. Re-fixing the antenna mounting tube by tighten the two screw/nut pairs.


ELEVATION TOO LOW
ELEVATION TOO HIGH
NORTH/SOUTH AXIS TOO FAR EAST
NORTH/SOUTH AXIS TOO FAR WEST
ELEVATION TOO HIGH, AND NORTH/SOUTH AXIS TOO FAR EAST
ELEVATION TOO LOW, AND NORTH/SOUTH AXIS TOO FAR WEST
TOO LITTLE DECLINATION
TOO MUCH DECLINATION
TOO MUCH DECLINATION, AND NORTH/SOUTH AXIS TOO FAR EAST

: ARC OF SATELLITE

: ARC TRACKED BY SMR-99G

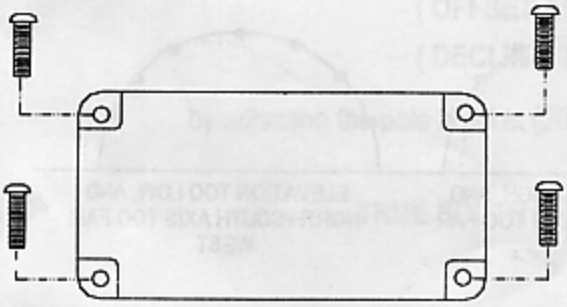
DOUBLE CHECK

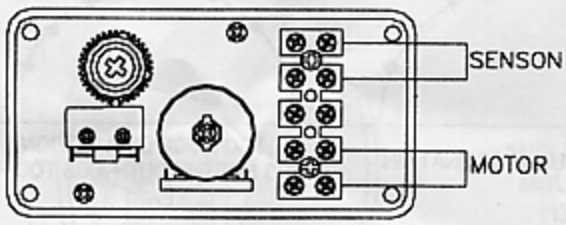
1. Make sure that two U-screws of the pole bracket have been equally fastened to the pole.
2. Make sure all screws have been well tightened.
3. Make sure that it has enough clearance so that the mount attached with antenna can move freely around 180 degrees without any obstacles. If not, the limits setting should be altered.

MOTOR CONNECTION

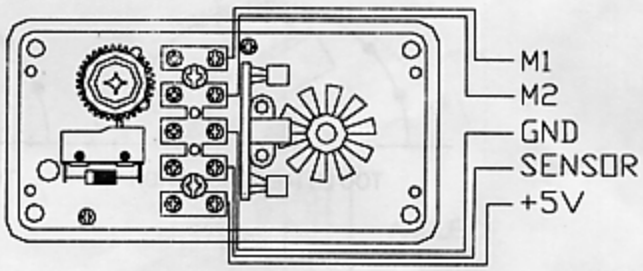
1. Disconnect the main power of Receiver or Positioner before connecting to the mount.
2. Open the plastic back cover of the Motor/Gear box. Connect the four leads of the cable from the Positioner to the terminal strap of the Motor/Gear box according to the following cable connection instruction sticker on the plastic back cover.

Note : The REED SWITCH will be possibly burned out by Miss Wiring!





SMR-99G (REED SENSOR TYPE)



SMO-99G (OPTICAL SENSOR TYPE)